

P17856.A13

Application No. 09/319,258

of the surface of the conductor circuit, covering the surface of the roughened layer with a layer of a metal having an ionization tendency of more than copper but not higher than titanium, or of a noble metal, and forming an interlaminar insulating layer.

REMARKS

Reconsideration and withdrawal of the rejections of record are respectfully requested.

***Summary of Status of Amendments and Office Action***

In the present amendment, claims 2 and 7 are amended, and claims 13-21 and 28-43 are canceled without prejudice or disclaimer. Therefore, claims 1-12, 22-27 and 44-49 remain pending in the application with claims 1, 2, 6, 7, 9, 11 being independent.

Claims 6, 8, 11, 12, 46 and 49 are allowed.

Claims 1-5, 9, 10, 13-45, 47 and 48 are rejected.

The specification is objected to under 37 C.F.R. § 1.71 and claims 2, 7, 22-24, 27, 45 and 47 are rejected under 35 U.S.C. § 112, first paragraph.

Claims 13-21 and 28-43 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

Claims 1-5, 9, 10, 13-26, 28-45 and 48 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ono et al. (hereinafter "Ono"), U.S. Patent No. 6,217,987.

***Request for Withdrawal of Finality of Office Action***

Applicants respectfully submit that the finality of the July 25, 2002 Office Action is premature, and should be withdrawn.

Specifically, Applicants point out that the claims which are newly rejected over Ono, such as independent claim 1, were merely amended in the Amendment Under 37 C.F.R. 1.111, filed March 15, 2002, to further clarify the claimed subject matter. More specifically, claim 1 was amended to clarify that the recited “formed by laminating a first interlaminar insulating layer on a conductor circuit of a substrate and repeating formation of conductor circuit and an interlaminar insulating layer on the first interlaminar insulating layer” includes “A multilayer printed circuit board comprising a plurality of interlaminar insulating layers and conductor circuits, said printed circuit board being formed by laminating a first interlaminar insulating layer on a conductor circuit of a substrate and repeating formation of conductor circuit and an interlaminar insulating layer on the first interlaminar insulating layer”.

A similar change was made to independent claim 2, and to include “”not higher” instead of “less’ in independent claims 2 and 7.

Applicants respectfully submit that the new ground of rejection, whether or not such rejection is proper or improper, could have been made by the Examiner in the previous Office Action. Therefore, the art rejection that is newly instituted in the Final Office Action is not due to Applicants' amendment, but is actually caused by the Examiner performing a further search and applying a newly found document against the claimed invention.

In view of the above, Applicants respectfully submit that the Examiner is not justified in

stating that "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action.", and Applicants request that the Examiner provide full support for this naked assertion regarding finality of the Office Action.

Accordingly, **withdrawal of the finality of the Office Action is requested.** In this regard, if the application is not allowed, or if the final rejection is maintained, the Examiner is respectfully requested to fully explain how Applicants' amendment necessitated the new grounds of rejection, as is alleged in the Final Office Action.

***Explanation and Support for Amendments***

Applicants submit that each of the foregoing amendments is fully supported by the originally filed disclosure, as will be discussed in the response to the objection to the specification under 37 C.F.R. 1.71 and the 35 U.S.C. § 112, first paragraph, rejection.

**Response to Objection Under 37 C.F.R. 1.71 and Rejection of Claims 2, 7, 22-24, 27, 45 and 47 under 35 U.S.C. 112, first paragraph**

Applicants note that in this objection and rejection, the Examiner asserts that the specification and claims 2, 7, 22-24, 27, 45 and 47 are not enabled because of the language pertaining to the surface of the roughened layer being covered with a layer of a metal having an ionization tendency of more than copper but not higher than titanium or a noble metal. The rejection contends that copper has an ionization tendency higher than titanium or a noble metal. Therefore, the Examiner suggests that what the Applicant intends is that "the surface of the roughened layer is

covered with a layer of a metal having an ionization tendency of less than copper but more than titanium or a noble metal.”

In contrast to the Examiner’s contentions, the present specification and claims are directed to a roughened layer which is covered with a layer of a metal having an ionization tendency of not higher than titanium but more than copper, or the metal is a noble metal. Thus, the metal can be, for example, titanium, aluminum, zinc, iron, indium, thallium, cobalt, nickel, tin, lead, and bismuth, or the metal can be a noble metal such as gold, silver and platinum. In this regard, the Examiner’s attention is directed to the originally filed specification, the last two paragraphs on page 18, inter alia.

Applicants respectfully submit that the specification and claims render it clear that the present invention is directed to a roughened layer which is covered with a layer of a metal having an ionization tendency of not higher than titanium but more than copper, or of a metal which is a noble metal. In other words, Applicants respectfully submit that it is clear that two different types of metals are being disclosed. In one instance, the metal is a metal having an ionization tendency which is not higher than titanium but more than that of copper. Alternatively, the metal can be a noble metal.

Claims 2 and 7 have been amended herein to even further clarify the above-discussed alternatives, whereby this ground of objection and rejection should be withdrawn.

#### **Response to 35 U.S.C. 112, Second Paragraph, Rejection**

Claims 13-21 and 28-43 are rejected under 35 U.S.C. 112, second paragraph as being indefinite.

In response, Applicants respectfully submit that claims 13-21 and 28-43 have been canceled without prejudice to the filing of the subject matter recited in these claims in one or more divisional and/or continuation applications in which this ground of rejection will be addressed if repeated therein. In this regard, the cancellation of these claims is without expressing any agreement and/or acquiescence with this ground of rejection, but is merely being made to advance this application to allowance and issue.

***Response To Rejection Under 35 U.S.C. § 102(b) As Being Anticipated By Ono***

Claims 1-5, 9, 10, 13-26, 28-45 and 48 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ono.

In response, Applicants note that Ono, which is commonly assigned with the assignee of the present application, i.e., Ividen Co., Ltd, was filed September 16, 1997 whereby its effective date as a reference is September 16, 1997. The present national stage application has an International Filing Date of December 18, 1997 based on its international filing as PCT/JP97/04684, which is subsequent to September 16, 1997. However, the present application claims priority of JP 8/354971, filed December 19, 1996; JP 8/357,959, filed December 27, 1996; JP 8/357801, filed December 28, 1996; JP 9/29587, filed January 28, 1997; JP 9/197526, filed July 23, 1997; and JP 9/197527, filed July 23, 1997. Each of these Japanese priority applications has a filing date prior to September 16, 1997.

Applicants are submitting herewith verified English translations of the six Japanese priority applications. The Examiner is respectfully requested to review these verified translations

P17856.A13

Application No. 09/319,258

and to withdraw the rejection of record, because the date of the reference has been overcome. In particular, the Examiner is requested, in conformance with MPEP 201.15, to review the submitted verified English translations to determine identity of invention between the U.S. and the foreign applications, and to review for sufficiency of disclosure under 35 U.S.C. 112, and to determine if there is a basis for the claims sought.

Applicants respectfully request that the rejection be withdrawn upon review of the submitted information including the accurate translations of the Japanese priority applications.

#### CONCLUSION

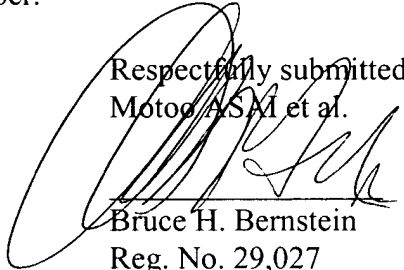
For the reasons advanced above, Applicants respectfully submit that all pending claims patentably define Applicants' invention.

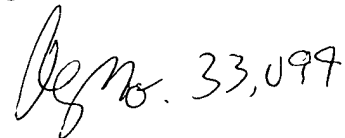
Allowance of the application with an early mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

Should the Examiner have any further comments or questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

November 25, 2002  
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**APPENDIX**  
**MARKED-UP COPY OF AMENDED CLAIMS 2 AND 7**

2. (Thrice Amended) A multilayer printed circuit board comprising a plurality of interlaminar insulating layers and conductor circuits, said printed circuit board being formed by laminating a first interlaminar insulating layer on a conductor circuit of a substrate and repeating formation of conductor circuit and an interlaminar insulating layer on the first interlaminar insulating layer, wherein the conductor circuit is comprised of an electroless plated film and an electrolytic plated film, and a roughened layer on at least a part of the surface of the conductor circuit, and the surface of the roughened layer is covered with a layer of a metal having an ionization tendency of more than copper but not higher than titanium, or of a noble metal.

7. (Thrice Amended) A method of producing a multilayer printed circuit board comprising subjecting a surface of a substrate to an electroless plating, forming a plating resist thereon, subjecting the substrate to an electrolytic plating, removing the plating resist, etching and removing the electroless plated film beneath the plating resist to form a conductor circuit comprised of the electroless plated film and the electrolytic plated film, forming a roughened layer on at least a part of the surface of the conductor circuit, covering the surface of the roughened layer with a layer of a metal having an ionization tendency of more than copper but not higher than titanium, or of a noble metal, and forming an interlaminar insulating layer.